SEAT No._____
[149]

SARDAR PATEL UNIVERSITY
External Examination (CBCS)
B. Sc. (Computer Science) – 5th Semester
US05CCSC24: Computer Networks
26th November, Friday, 2021
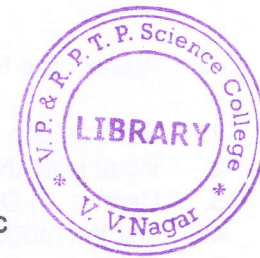
Time: 3.00pm to 5.00pm   Total Marks: 70

Q-1   Select an appropriate option.   10

1.   Broadcasting means _____.
      (a) Sending message to some computer
      (b) Sending message to all computer in the same network
      (c) Receiving message from all computer in the network
      (d) Receiving message from some computer in the network

2.   A _____ is a data communication system within a building, plant, or campus, or between nearby buildings.
      (a) MAN   (b) LAN   (c) WAN   (d) None of these

3.   A computer network permits sharing of _____.
      (a) Resources   (b) Information
      (c) Both (a) & (b)   (d) None of these

4.   Transmission media are usually categorized as _____.
      (a) Fixed or unfixed   (b) Guided or unguided
      (c) Determinate or indeterminate (d) Metallic or non-metallic

5.   Which of the following is not a guided medium?
      (a) Twisted-pair cable   (b) Coaxial cable
      (c) Fiber-optic cable   (d) Atmosphere

6.   _____ Cable is used for voice and data communications.
      (a) Coaxial   (b) Fiber-optic   (c) Twisted-pair   (d) None of these

7.   Which layer is not present in OSI Model?
      (a) Internet Layer   (b) Transport Layer
      (c) Physical Layer   (d) Application Layer

8.   The ___ layer lies between the network layer and the application layer.
      (a) Data link   (b) Physical   (c) Transport   (d) None of these

9.   Which topology requires a central controller or hub?
      (a) Star   (b) Mesh   (c) Bus   (d) Ring

10.   Which of the following is a connecting device?
      (a) Bridge   (b) Repeater   (c) Hub   (d) All of these

(P.T.O)

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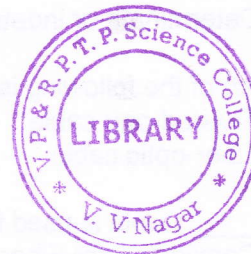**Q-2** Fill in the blanks / True or False   08

1. If a computer on the network shares resources for others to use, it is called _____.
2. A _____ is a data communication system spanning states, countries, or the whole world.
3. Coaxial cable consists of an inner copper core and a second conducting outer sheath. (True / False)
4. PSK modulation requires the lowest bandwidth. (True / False)
5. To collect multiple calls together and send them together _____ is used.
6. The _____ layer changes bits into electromagnetic signals.
7. A cable break in a star topology stops all transmission. (True / False)
8. A hub is actually a multiport repeater. (True / False)

Q-3 Answer the following questions. (Attempt any **TEN**)   20

1. Differentiate between broadcasting and multi casting.
2. What is MAN?
3. Define: (i) Data rate (ii) Modulation rate
4. List the modulation techniques.
5. List the transmission modes.
6. Explain parallel transmission in brief.
7. Write the full form: (i) DNS (ii) HTTP
8. Define bent pipe.
9. Explain multiplexing and demultiplexing.
10. List the various topologies for LAN.
11. Explain modem with example in brief.
12. Explain hub with example in brief.

Q-4 Answer the following questions. (Attempt any **FOUR**)   32

1. Define computer network. State the advantages and disadvantages of computer network.
2. Explain Wide Area Network.
3. Explain fiber optic in detail.
4. What is switching? Explain circuit switching in detail.
5. Explain OSI reference model in detail.
6. Write a note on communication satellite.
7. Explain Bus network with advantages and disadvantages.
8. Write a note on Mesh Networks.

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